

**DATE**

11/7/22

PRESENTING CLINICAL SIGNS

History: PU/PD- was on ABS for swollen mammary gland/nipple. Still drinking+ urinating normally.

PATIENT

Stella Smith

Current Medications: Clindamycin 300mg Started 10/13 for 14 days.

Lab Results: WNL.

Radiographs: 2 possible masses one near stomach+one near bladder.

Date of Previous IntraPet Ultrasound: No previous.

SPECIES

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS.

BREED

Pit Mix

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

AGE

8/2/10

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The right kidney measures 5.84 cm. The left kidney measures 5.89 cm. A cortical cyst was noted in the caudal pole of the left kidney.

WEIGHT

58.6 Pounds

Adrenal Glands

Left adrenal gland is normal in size (2.72 cm long x 0.7 cm at cranial pole and 0.84 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (2.8 cm long x 0.89 cm at cranial pole and 0.88 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

INTERPRETED BYBeth Johnson, DVM
DACVIM**HOSPITAL NAME**

Animal Care Center

Spleen

Spleen is subjectively large in size with normal smooth margins. Parenchyma is normal in echogenicity with a coarse/heterogenous echotexture. No focal nodules or masses are observed. Splenic vasculature appears normal.

REFERRING VET

Dr. Anderson

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

INVOICE

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Gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

Small intestine is diffusely mildly thick with a relatively thick mucosa compared to other layers. Normal wall layering is preserved; however, the mucosa is more echogenic than normal and contains hyperechoic striations perpendicular to the lumen. The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The observed pancreas appears appropriately isoechoic to surrounding omental fat. The capsule is mildly irregular in shape. Parenchyma is mildly heterogenous and coarse. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of peritoneal effusion. There is no apparent lymphadenopathy.

Other

There is a labeled right caudal mammary mass that is heterogenous and vascular in appearance.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Lymphangiectasia – Small bowel findings are most consistent with lacteal dilation. These findings can be observed with protein-losing enteropathies caused by either primary lymphangiectasia or primary infiltrative inflammatory disease with secondary lymphangiectasia. Infiltrative neoplasia is possible but considered less likely. Histopathology is necessary to definitively determine underlying cause.
- Markedly heterogenous Liver – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- Coarse splenomegaly – can be associated with congestion caused by sedation (if sedated) but can also be associated with diffuse infiltrative disease. Both benign conditions such as extramedullary hematopoiesis, lymphoid hyperplasia, as well as infiltrative neoplastic diseases such as round cell neoplasia should be considered.
- A mammary mass. Benign versus malignant disease cannot be determined ultrasonographically.

Secondary Findings

- Age-related kidney changes
- Pancreatic age-related remodeling – Mild irregularities are consistent with benign age-related change. Low-grade smoldering chronic pancreatitis cannot be ruled out and should be suspected in the face of appropriate clinical signs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

This patient's reported presenting complaint of polyuria/polydipsia and the reported mammary mass and

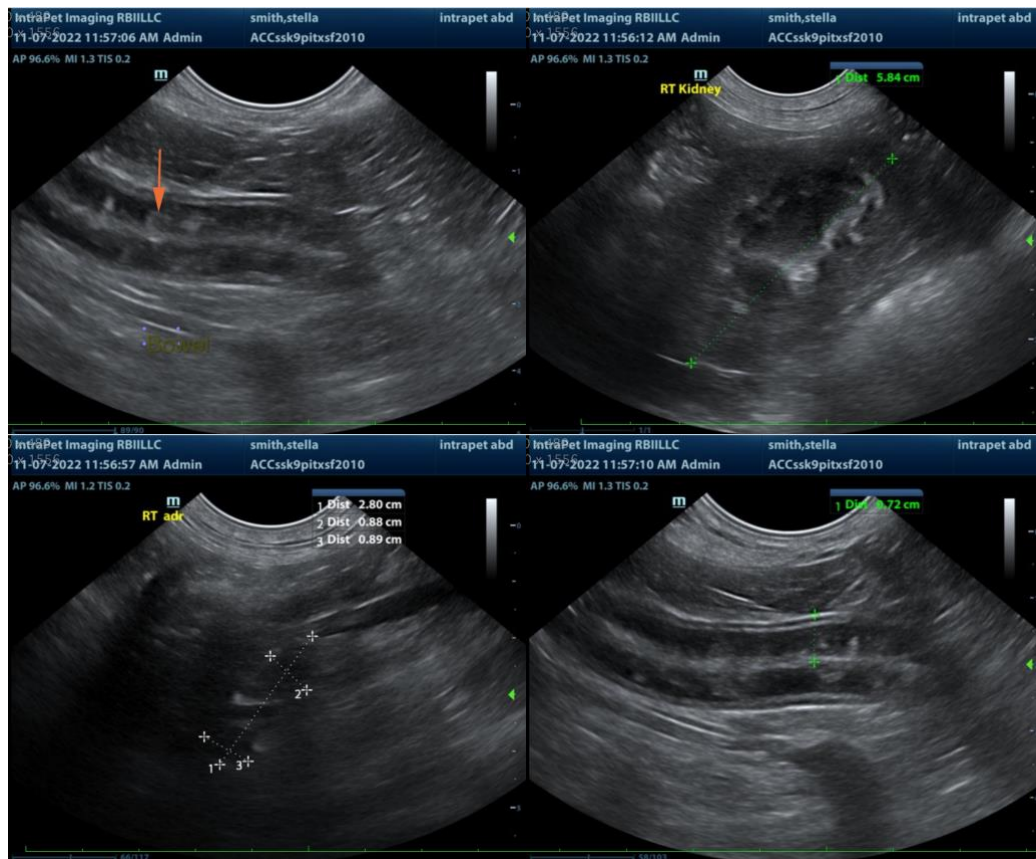
the ultrasonographic pathology described above may or may not be related or may be a combination of diagnosis.

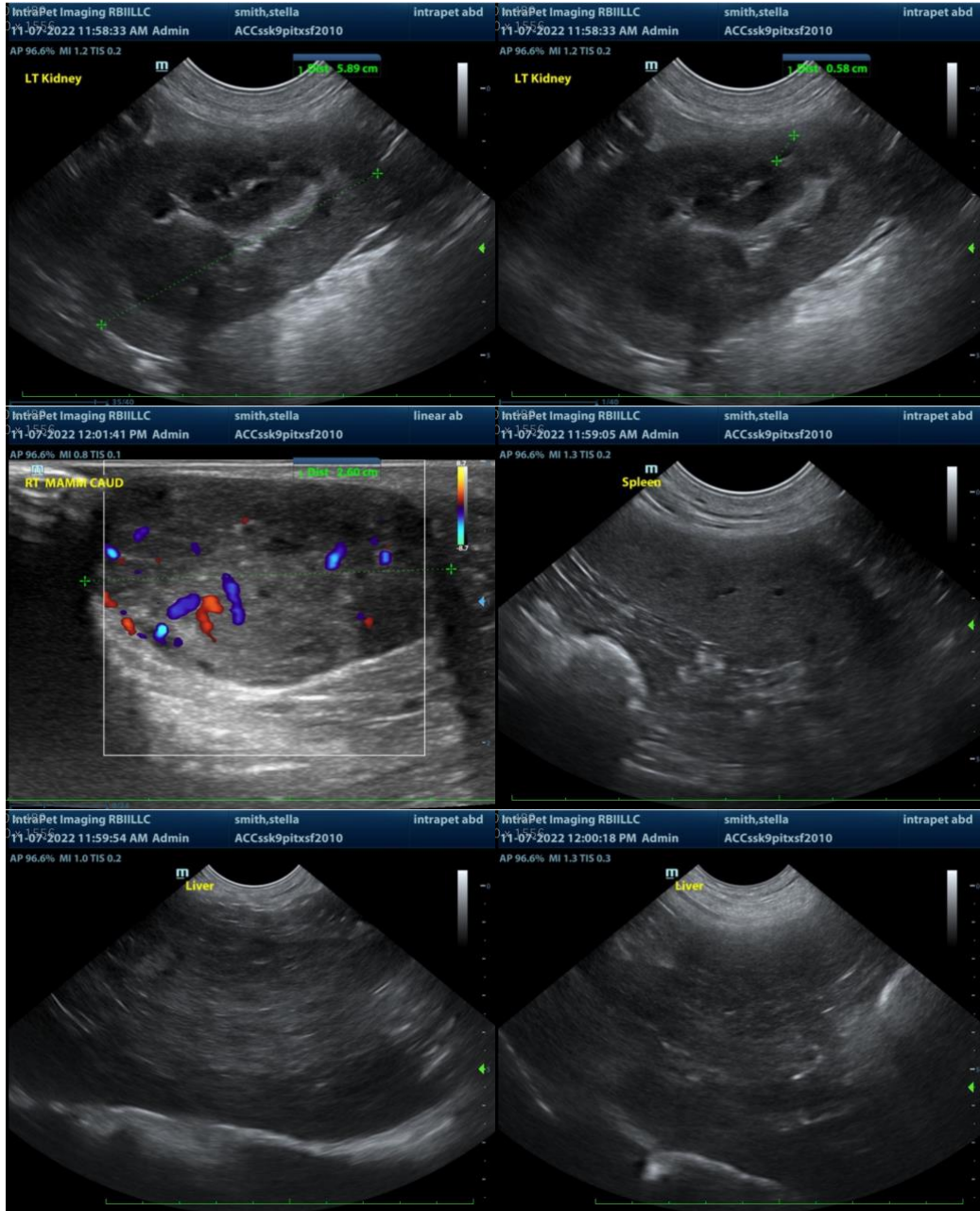
Given the presence of the mammary mass, three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated. Sampling of the mass or ideally, surgical mass removal is also recommended.

In the meantime, given the liver and splenic changes, fine needle aspirates of the liver and spleen are recommended prior to surgery for further evaluation of unlikely, but possible metastatic disease.

Additionally, given the marked bowel changes, a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

If not recently evaluated, urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended. However, given that this patient is reportedly already on antibiotics, a culture isn't recommended until a week to 10 days after finishing antibiotics to rule out a false negative.





The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

Beth Johnson, DVM DACVIM

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